Daily GLOWBUGS

Digest: V1 #85

via AB4EL Web Digests @ SunSITE

Purpose: building and operating vacuum tube-based QRP rigs

[AB4EL Ham Radio Homepage @ SunSITE]

%%%%% GlowBugs %%%%% GlowBugs %%%%% GlowBugs %%%%% GlowBugs %%%%%

Subject: glowbugs V1 #85
glowbugs Monday, August 4 1997 Volume 01 : Number 085

Date: Sat, 2 Aug 1997 16:39:28 -0400
From: "Brian Carling" <bry@mnsinc.com>
Subject: Re: Whoop-de-whoop-whoop (was Es lebe C-W Crystals! (Phoeni

On 29 Jul 97 at 7:52, Roberta J. Barmore wrote:

> Hi, Art (& GB)!
>
> H'mmm. Ruskin's got something "Special," all right. That's a tri-tet variant and it has the potential to *eat* crystals if you're running on fundamental. Xtal current will be higher than a cat's back with an 80m rock and 80m output! That leads to yoop, which comes in this instance from heating of the crystal. (Classic safety device & indicator is a pilot lamp in series with the non-grid side of the xtal; 150mA and smaller bulbs are typical. Cheap insurance, even at $5.80 per each from C-W crystals aren't so inexpensive as to be disposable The bulb will let you find out how much xtal RF current you're running--sub various sizes in 'til you get one that lights up full, and that's it).
> The 350mA you report is cathode current (plate+screen+grid), and it's darned high. My Jones rig has got the "plate current" meter in the same position (metal zeroing screw, so I decided to play safer), and runs around 75mA fully loaded. Off-resonance, it'll go over 100mA but the meter only goes to 100 so I dunno how much farther.
>
> Replace L1 with an RFC, and connect the side of the crystal that went to it to ground; there's a Jones. It won't eat crystals.
> Or replace L1 with a 200 to 400R 2W resistor, and you've got a tuned-plate (the Millen 90800 has a toggle switch to kill the tri-tet tank so you can run on fundamental and not kill the quartz or yoop, a very common dodge).
> Or run all your crystals at 1/2 the desired output freq, meaning you'll need to invest in some 160m ones or move to 40m. RFC's and/or resistors are cheaper.

>
>   73,
>   --Bobbi

Bobbi - it sounds like you meant 2 X - rather than 1/2 !!
I don't know of ANY way to run a crystal at 1/2 of its frequency!

Bry, AF4K

****
*** 73 from Radio AF4K/G3XLQ Gaithersburg, MD USA *
** E-mail to: bry@mnsinc.com   *
*** See the interesting ham radio resources at: *
** http://www.mnsinc.com/bry/   *
****
AM International #1024, TENTEN #13582. GRID FM19
Rigs: Valiant, DX-60/HG-10, Eldico TR-75, Millen 90810
FT-840, TM-261, Ameco TX-62, Gonset Communicator III
HTX-202...TEN-TEN #13582, DXCC #17,763 Bicentennial WAS

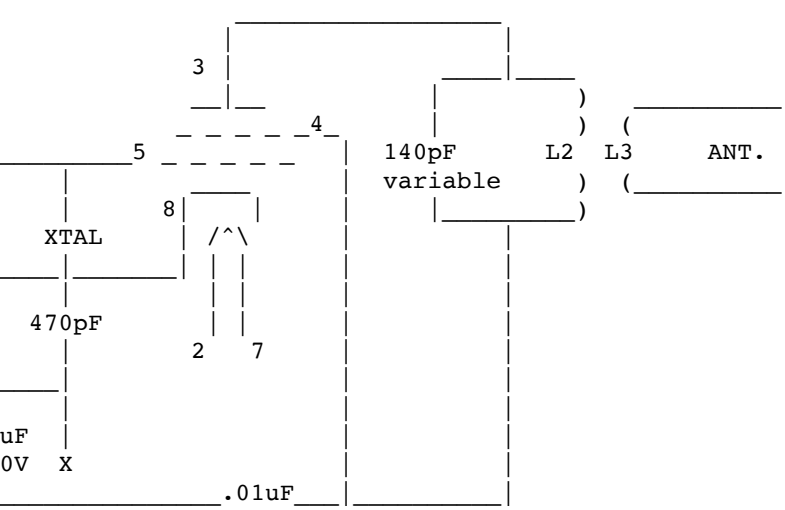
Date: Sat, 2 Aug 1997 16:39:27 -0400
From: "Brian Carling" <bry@mnsinc.com>
Subject: Re: Whoop-de-whoop-whoop (was Es lebe C-W Crystals! (Phoenix no

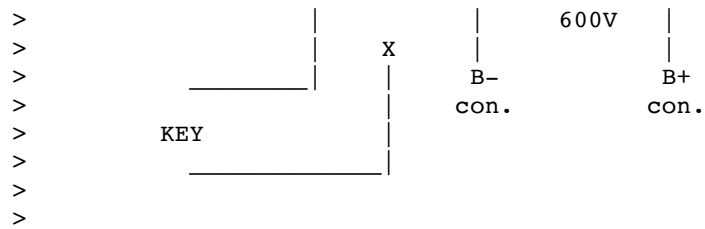
Say Art - exactly what tube do you use for this rig?

Bry, AF4K

On 29 Jul 97 at 6:27, Art Winterbauer wrote:

> Hi, Bobbi. I'm using a transmitter called the Ruskin Special which is
> probably similar to the Jones rig you mentioned. Shane Wilcox of the
> list was helping me to get it working, and here's a schematic he drew
> from the original article (I was using a modern reprint that had
> errors in the schematic):
>





> * (X connects to X, but not to B-)
> * RFC is 2.5mH
> * all wire junctions and crossovers are
> connections.
>
> * L1 is cathode coil.
> * L2 is plate coil.
> * L3 is antenna coil
>
> (schematic drawn by Shane Wilcox...tnx Shane!)
>
> The idea is to use a differently wound L2/L3 coupling for each band
> you wish to operate (impedance matching of a sort). The L1/470 pf
> tuned cathode circuit is supposed to establish the resonate frequency
> so that an 80-meter xtal can be used for all ham frequencies on 80
> meters on up. According to the article, this cathode circuit is
> tweaked by adjusting the shape and spacing of the L1 coil in case it's
> not quite resonate on the desired harmonic.
>
> Perhaps if I were to get my mitts on an 80-meter xtal things would
> work according to specs but have been using only 40-meter xtals. I've
> been varying the 470 pf cap across L1 down to 220 pf or so and playing
> with L1. Those adjustments have resulted in subtle changes to the
> quality of the note and does reduce the chirp a little.
>
> My voltmeter died the death (gotta watch those settings around high
> voltage) but an ampmeter in series between the key and the 470 pf cap
> (where the Xs are in the schematic) generally shows roughly 350 ma.
> Thatsa lotta current.
>
> I suppose I wondered about the xtal since one of them seems to work so
> well. This has really been a fun project, especially after Shane
> provided a correct schematic and experimentation with L2/L3 (radically
> different from the article) yielded good power around 10 watts. I
> feed the output into an MFJ tuner and on into an 80-meter inverted
> vee.
>
> I'll probably just order one or two 80-meter xtals, wind another L2/L3
> coil set, and feed the output directly into the twin-lead going to the
> inverted vee. What the hay...I'll be a big spender and take the big
> risk!
>
> 73 de Art WA5OES
>
>
>
>
>
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*** 73 from Radio AF4K/G3XLQ Gaithersburg, MD USA *
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Date: Sat, 02 Aug 1997 15:30:00 -0700
From: "Paul Carreiro, N6EV" <carreiro@barepower.net>
Subject: N6EV Glowbug Site Offline Temporarilly

Hello fellow Glowbugites..

My ISP was bought out by another... and in the ensuing confusion, all users on the ISP were offline for about 2 weeks.. including all web pages.

I just got E-Mail back online yesterday.. so have missed the past 2 weeks worth of fun.

My Glowbug site is currently offline. I don't know when the new ISP will get around to putting them back up. Luckly, I have local copies of everything so I have not lost any data. In the mean time, this will be a good opportunity
for me to update the site. I've been remiss in keeping the site updated and scanning more QST handbook schematics/articles.

I will post again when the site has returned to the air.

73 one and all.
Paul N6EV   ZUT!

  Paul F. Carreiro - N6EV - ex-N6HCS - El Camino Village, CA
  E-Mail: carreiro@barepower.net - http://www.barepower.net/~carreiro/
  QRP - Boatanchors - Glowbugs - Mobile CW - QRQ +45WPM - ZUT!
  NorCal QRP #367 - QRP QRCI #8885 - CW FISTS #1407 - QRP-L #236
  Zuni Loop Mountain Expeditionary Force (QRP Field Day)

Date: Sat, 2 Aug 1997 16:44:47 -0600 (MDT)
From: Art Winterbauer <art@comet.ucar.edu>
Subject: Re: Whoop-de-whoop-whoop (was Es lebe C-W Crystals! (Phoenix no

Hello Bry, et al:

The tube I'm using is a 6L6. I made the mods Bobbi suggested (to turn the tx into a fundamental-xtal-only rig rather than one that works on harmonics from some base xtal frequency).

It works much better now. The chirp is gone. The max power I can squeeze out of the rig is about 7 watts now, regardless of coupling tinkering (was about 10 before).

I'm quite satisfied now and will make attempts periodically to get

into the BA activities from a xtal frequency of 7053, using a two-step regen to receive.

Tnx again, Bobbi! 73 de Art, WA5OES

Date: Sun, 03 Aug 1997 13:15:48 -0700
From: Ken Lopez <kjlopez@earthlink.net>
Subject: Re: The Flagstaff Hamfest

Jeff Duntemann wrote:

> Generally, not good news. This was the least-well-attended Flagstaff
> hamfest of the many I've been to, both in terms of vendors and >
> There wasn't much vintage gear on display, and what was there seemed
> overpriced for the condition it was in. Keys were nearly absent, except
> for a couple of tables catering to collectors, asking $50 for grimy J-38's.
> If I was a kid trying to put a cheap CW station together, I'd be out of luck.
>

Jeff,

I have only been attending Ft. Tuthill for five years, but this year was much better than last, when the Tax men scared everyone away. I noticed that this year, moreso than before, much of the "good stuff" was gone by noon on Friday. I always am there at dawn when the vendors are setting up. Since this process goes on most of the day, Friday is the best day to pick up vintage gear, parts, etc. By Saturday afternoon, when it began to rain, most of the goodies were gone, and folks were packing up.

So, you got the National Velvets, eh?. Now, how did I miss those?

Cheers,
Ken, N6TZV

PS: Anyone got any Drake R4C filters out there?

End of glowbugs V1 #85
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